

Claims

1. A method of providing overcharge protection of a battery pack comprising the steps of:
 - determining a voltage level at said battery pack; and
 - automatically disconnecting a charging signal from said battery pack when said battery pack voltage level reaches a turn-off threshold voltage level.
2. The method of claim 1 further including the steps of:
 - determining the turn-off threshold voltage level;
 - determining a turn-on threshold voltage level; and
 - wherein said automatically disconnecting step includes the substeps of:
 - generating an output signal when said battery pack voltage level reaches said turn-off threshold voltage level; and
 - opening a switch coupling a charger that produces said charging signal and said battery pack responsive to said output signal.
3. The method of claim 2 further including the steps of:
 - discontinuing said output signal and generating a connect signal when said battery pack voltage level reaches said turn-on threshold voltage level; and
 - closing said switch coupling said charger that produces said charging signal and said battery pack responsive to said output signal.
4. The method of claim 1 further including the step of scaling a voltage level at said battery pack to obtain a scaled battery pack voltage level as determined by a voltage divider.
5. The method of claim 1 further including the step of comparing said battery pack voltage level to said turn-off threshold voltage level.

6. The method of claim 2 further including the step of comparing said battery pack voltage level to said turn-on threshold voltage level.

7. A protection circuit for a battery pack comprising:
- a comparator device for comparing a battery pack voltage level to a turn-off threshold voltage level; and
 - a switch coupled between a charger and said battery pack responsive to an output signal.
8. The protection circuit of claim 7 wherein said comparator device compares said battery pack voltage level to a turn-on threshold voltage level.
9. The protection circuit of claim 7 wherein said switch automatically disconnects a charging signal from said battery pack when said battery pack voltage level exceeds said turn-off threshold voltage level.
10. The protection circuit of claim 9 wherein said switch automatically connects a charging signal from said battery pack when said battery pack voltage level is less than said turn-on threshold voltage level.